Title (en)

Oxide superconducting stranded wire and method of manufacturing thereof

Title (de)

Verdrillter Oxid-Supraleiterdraht und Verfahren zu seiner Herstellung

Title (fr)

Fil torsadé à oxyde supraconducteur et procédé de fabrication

Publication

EP 0917156 B1 20090506 (EN)

Application

EP 98121292 A 19981109

Priority

JP 31388997 A 19971114

Abstract (en)

[origin: EP0917156A2] An oxide superconducting stranded wire having inter-strand insulation and high critical current is provided. A wire (11) including an oxide superconducting material and a matrix covering the material and consisting essentially of silver or a silver alloy is coated with a paint containing, as a main component, an organometallic polymer such as a silicone polymer or aluminum primary phosphorus in a paint reservoir (15), and the paint is baked in a baking furnace (17) via a drying furnace (16). A plurality of such wires with the baked paint are twined into a stranded wire, which is then heated up to a temperature necessary for sintering the oxide superconducting material. The stranded wire thus obtained through the step of sintering may have high critical current. A heat-resisting insulating coating layer may be formed by baking the paint. <IMAGE>

IPC 8 full level

H10N 60/01 (2023.01); **H01B 12/08** (2006.01)

CPC (source: EP US)

H10N 60/0801 (2023.02 - EP US); Y10S 505/887 (2013.01 - EP US)

Citation (examination)

- WO 9813859 A2 19980402 - AMERICAN SUPERCONDUCTOR CORP [US]
- EP 0736914 A1 19961009 - SUMITOMO ELECTRIC INDUSTRIES [JP]
- WO 9636485 A1 19961121 - AMERICAN SUPERCONDUCTOR CORP [US]

Cited by

EP1933334A4

Designated contracting state (EPC)

CH DE DK FR GB IT LI

DOCDB simple family (publication)

EP 0917156 A2 19990519; **EP 0917156 A3 20001011**; **EP 0917156 B1 20090506**; DE 69840803 D1 20090618; DK 0917156 T3 20090817; US 6271474 B1 20010807

DOCDB simple family (application)

EP 98121292 A 19981109; DE 69840803 T 19981109; DK 98121292 T 19981109; US 18824298 A 19981109